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tale" means to indicate to the driver that the heater is properly functioning. This requirement shall not apply to heaters used solely for the cargo space in semitrailers or full trailers.

(14) Shut-off control. Automatic means, or manual means if the control is readily accessible to the driver without moving from the driver's seat, shall be provided to shut off the fuel and electrical supply in case of failure of the heater to function for any reason, or in case the heater should function improperly or overheat. This requirement shall not apply to wood charcoal heaters or to heaters used solely to heat the contents of cargo tank motor vehicles, but wood charcoal heaters must be provided with a controlled method of regulating the flow of combustion air.

(15) Certification required. Every combustion-type heater, except wood charcoal heaters, the date of manufacture of which is subsequent to December 31, 1952, and every wood charcoal heater, the date of manufacture of which is subsequent to September 1, 1953, shall be marked plainly to indicate the type of service for which such heater is designed and with a certification by the manufacturer that the heater meets the applicable requirements for such use. For example, "Meets I.C.C. Bus Heater Requirements," Meets I.C.C. Flue-Vented Cargo Space Heater Requirements," and after December 31, 1967, such certification shall read "Meets FMCSA Bus Heater Requirements," "Meets FMCSA Flue-Vented Cargo Space Heater Requirements," etc.

(c) Exception. The certification for a catalytic heater which is used in transporting flammable liquid or gas shall be as prescribed under §177.834(1) of this title.

[33 FR 19735, Dec. 25, 1968, as amended at 40 FR 51198, Nov. 4, 1975; 53 FR 49401, Dec. 7, 1988; 77 FR 59828, Oct. 1, 2012; 78 FR 58484, Sept. 24, 2013]

## § 393.78 Windshield wiping and washing systems.

(a) Vehicles manufactured on or after December 25, 1968. Each bus, truck, and truck-tractor manufactured on or after December 25, 1968, must have a wind-shield wiping system that meets the re-

quirements of FMVSS No. 104 (S4.1) in effect on the date of manufacture. Each of these vehicles must have a windshield washing system that meets the requirements of FMVSS No. 104 (S4.2.2) in effect on the date of manufacture.

(b) Vehicles manufactured between June 30, 1953, and December 24, 1968. Each truck, truck-tractor, and bus manufactured between June 30, 1953, and December 24, 1968, shall be equipped with a power-driven windshield wiping system with at least two wiper blades, one on each side of the centerline of the windshield. Motor vehicles which depend upon vacuum to operate the windshield wipers, shall have the wiper system constructed and maintained such that the performance of the wipers will not be adversely affected by a change in the intake manifold pressure.

(c) Driveaway-towaway operations. Windshield wiping and washing systems need not be in working condition while a commercial motor vehicle is being towed in a driveaway-towaway operation.

[70 FR 48054, Aug. 15, 2005]

## § 393.79 Windshield defrosting and defogging systems.

(a) Vehicles manufactured on or after December 25, 1968. Each bus, truck, and truck-tractor manufactured on or after December 25, 1968, must have a windshield defrosting and defogging system that meets the requirements of FMVSS No. 103 in effect on the date of manufacture.

(b) Vehicles manufactured before December 25, 1968. Each bus, truck, and truck-tractor shall be equipped with a means for preventing the accumulation of ice, snow, frost, or condensation that could obstruct the driver's view through the windshield while the vehicle is being driven.

[70 FR 48054, Aug. 15, 2005]

## §393.80 Rear-vision mirrors.

(a) Every bus, truck, and truck tractor shall be equipped with two rear-vision mirrors, one at each side, firmly attached to the outside of the motor vehicle, and so located as to reflect to the driver a view of the highway to the rear, along both sides of the vehicle. All such regulated rear-vision mirrors